

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF MICHIGAN
NORTHERN DIVISION

DOW CORNING CORPORATION,

Plaintiff/Counter-Defendant,

v.

Case Number 09-10429
Honorable Thomas L. Ludington

WEATHER SHIELD MANUFACTURING, INC.,
SNE ENTERPRISES, INC., and PEACHTREE
DOORS AND WINDOWS, INC.

Defendants/Counter-Plaintiffs.

**OPINION AND ORDER CANCELING HEARING AND DENYING PLAINTIFF'S
MOTION TO EXCLUDE DR. G. FRED WILLARD**

On February 4, 2009, Plaintiff Dow Corning Corporation ("Dow Corning" or "Plaintiff") filed a complaint against Weather Shield Manufacturing, Inc., SNE Enterprises, Inc. and Peachtree Doors and Windows, Inc. (collectively, "Weather Shield" or "Defendants") alleging breach of contract and unjust enrichment [Dkt. #1]. Plaintiff alleges that it entered into a contract with Defendants on March 22, 2004, which Defendants breached by failing to repay Plaintiff for a loan made to purchase glazing equipment, for failing to purchase Plaintiff's silicone sealant for its window and door manufacturing operations until August 31, 2008, and for using the glazing equipment with products other than Plaintiff's. Plaintiff also alleges that Defendants have been unjustly enriched by using the glazing equipment without having fully paid its purchase price.

On July 2, 2010, Plaintiff filed a motion to exclude the testimony, report, and opinions of Dr. G. Fred Willard because he is not qualified to render an expert opinion regarding the window/door

industry due to his lack of requisite knowledge, skill, training, education and experience, because his testing methodology is unreliable, and because his testimony and opinions will not assist the trier of fact [Dkt. #22]. Defendants filed a response on July 30, 2010 [Dkt. #27]. Plaintiff filed a reply on August 6, 2010 [Dkt. #28]. The Court has reviewed the parties' submissions and finds that the facts and the law have been sufficiently set forth in the motion papers. The Court concludes that oral argument will not aid in the disposition of the motion. Accordingly, it is **ORDERED** that the motion be decided on the papers submitted. E.D. Mich. LR 7.1(e)(2). For the reasons provided herein, Plaintiff's motion to exclude the testimony, report, and opinions of Dr. Willard will be denied.

I

The facts of this case have been provided in the Court's opinion and order directing supplemental briefing [Dkt. #39] and the Court's order granting in part and denying in part Plaintiff's motion for summary judgment [Dkt. #44].

II

Dr. Willard, Ph.D., from CAS-MI Laboratories ("CAS-MI") has been retained by Weather Shield as an expert in the instant case. Dr. Willard offered three opinions in this matter, two regarding the plasticity characteristics of InstantGlaze and a third regarding the alleged failure of InstantGlaze to cure on a sample window sash obtained from a home in Houston, Texas.

A

Dr. Willard holds a bachelors and doctorate degree in chemistry. Since 1978 he has worked in technical positions with industry leaders in polymer chemistry including Owens Corning Fiberglass, General Electric Plastics, General Electric Specialty Chemicals, Chemir/Polytech

Laboratory and, more recently, CAS-MI Laboratories, LLC. Dr. Willard is an expert in polymers of which silicone is a subset. Importantly, Dr. Willard is a SIX SIGMA¹ trainer with expertise relating to the issue of variability within manufacturing processes. Dr. Willard has been qualified as an expert on numerous occasions and has testified at both trial and in deposition as set forth in his CV.

B

Dr. Willard's three primary opinions in this case are as follows:

1. The Dow Corning InstantGlaze I and II products were not appropriate for industrial use.

Industrial processes require a certain amount of consistency in the materials used due to the automated equipment employed and the speed of processing. The InstantGlaze products were not consistent batch to batch nor some times even drum to drum. The inconsistency in the InstantGlaze products was verified in the laboratory. Samples were found to be inconsistent within a drum based on FTIR analysis, and Shore A hardness values varied widely from 21.3 to 67.3 compared to a reported typical value of 60. This inconsistency in the InstantGlaze products then resulted in the loss of window manufacturing efficiency due to the need for constant manual adjustments in the processing line such as temperature changes in the product application, larger or smaller beads to be applied, head location changes, nozzle adjustments, and nozzle temperature adjustments. In turn, these adjustments lead to more material costs, equipment costs, and testing costs. Needless to say, optimum window and door products were not being produced while these adjustments to the process were being made which lead to testing failures and field failures.

Dow Corning claims that they manufactured to sales specifications. The sales specifications however only included two properties: appearance and plasticity. Appearance indicated that the product was clear. Plasticity values, a measure of stiffness, were defined as a range from 0.85 to 1.25 for InstantGlaze I. This range was proposed by Dow Corning even though

¹SIX SIGMA seeks to improve the quality of process outputs by identifying and removing the causes of defects (errors) and minimizing variability in manufacturing and business processes. Notably, Dow Corning utilized SIX SIGMA in its efforts to control the variability of the plasticity of the InstantGlaze materials and had conducted internal "brainstorming" sessions to reduce the variability of the plasticity of the InstantGlaze so that its customers could "reliably repeatably use it in their plants" (Block Dep. 52:1-25, June 9, 2010) which was something that all manufacturers hope to achieve (*Id.*).

Weather Shield wanted a more narrow range of 0.94 to 1.06 which was beyond Dow Corning's capabilities. The plasticity range suggested by Dow Corning was very broad was mostly achieved by lot selection, or even drum selection. These sales specifications were not provided to Weather Shield early on so as to guide their selection and evaluation process but were provided more recently after issues were found. Even then, many lots of InstantGlaze only had an appearance value listed under their sales specification sheet with no plasticity value. Usually plasticity values were only supplied when requested by Weather Shield.

In the beginning Weather Shield was provided only typical properties which stipulated among other properties green strength and Shore A hardness. The required green strength was not achieved and the Shore A hardness was variable. Again inconsistency in the InstantGlaze materials resulted in properties far removed from the typical properties.

The industrial manufacturing of windows and doors requires a tight range of tolerances on component properties such as glazing properties, especially on those properties such as plasticity that directly affect processing. It is not possible to maintain tight processing control in window manufacturing, as most quality systems require, when a component such as the glazing material has such variability within itself. It is a frustrating and expensive experience to constantly make process adjustments to accommodate such a component. Therefore, InstantGlaze I and II do not fit the requirement for industrial materials.

2. Variability in the plasticity of the InstantGlaze I and II products resulted in non-uniform and inconsistent bead application leading to field failures.

- (a) Application of a thick bead resulted in too little squeeze out.

When the glaze was too stiff (low plasticity), it would not penetrate into corners leaving voids. Also, the thick glaze resulted in a thick bead being applied. The thick bead did not allow the window glass to squeeze out enough glaze leaving the glass too high in the frame. Also, grills used to simulate divided glass (SDLs) were too high in the window frame and would not fit properly. These issues then had to be corrected manually.

- (b) Application of a thin bead resulted in too much squeeze out.

When the glaze was too thin (high plasticity), the glaze bead would squeeze out and not support the window glass leading to and the use of glazing shims to support the glass. Also, the thin glaze bead allowed window glass to sink in too far and then the SDLs were too low and would not fit properly. Corrections had to be made manually. Sometimes the SDLs would pop off in the field.

3. InstantGlaze I and II failed to completely harden which led to field failures and increased liability of leaky windows into the future.

A failed window recovered from the field indicated voids near corners and a drip along two edges. The defective window was shipped, sold, installed, and then failed in the field after relatively short period of time. Laboratory testing on this defective window determined that the glazing was still tacky and appeared uncured. These observations further illustrate the Weather Shield complaint that the InstantGlaze never really cures. The concern is that there might be many more such windows still in the field.

CONCLUSION

Within a reasonable degree of scientific certainty, it appears that the InstantGlaze products were not suitable as industrial products due to wide variability in plasticity (stiffness) and lack of cure.

Def.s' Resp. to Pl.'s Mot. To Exclude Expert Ex. 14.

III

The standard for the admissibility of expert testimony is set forth in the Federal Rules of Evidence. *Saginaw Chippewa Indian Tribe of Mich. v. Granholm*, 690 F. Supp. 2d 622, 634 (E.D. Mich. 2010). Federal Rule of Evidence 702 provides:

If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise, if (1) the testimony is based upon sufficient facts or data, (2) the testimony is the product of reliable principles and methods, and (3) the witnesses apply the principles and methods reliably to the facts of the case.

The trial judge has a “gatekeeping” role with respect to expert testimony, not only for testimony based on scientific knowledge, but also for testimony based on technical and other specialized knowledge. *Kuhmo Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 141 (1999); *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 592 (1993). The proponent of the testimony must establish its admissibility by a preponderance of proof. *Daubert*, 509 U.S. at 592 n.10. An expert’s opinion must be supported by “more than subjective belief and unsupported speculation” and should be

supported by “good grounds,” based on what is known. *McLean v. 988011 Ontario, Ltd.*, 224 F.3d 797, 800-01 (6th Cir. 2000) (citations omitted). The expert’s conclusions regarding causation must have a basis in established fact and cannot be premised on mere suppositions. *Id.* An expert’s opinion, where based on assumed facts, must find some support for those assumptions in the record. *Id.*

No matter which guidelines or factors are applied, “the key question remains the same: Does the expert possess ‘special knowledge’ that will aid the trier of fact in determining a fact in issue, and is the proposed testimony the product of sufficient research that was conducted pursuant to reliable methods?” *Saginaw Chippewa Indian Tribe of Michigan*, 690 F. Supp. 2d at 635. Determination of the initial qualifications of an expert to provide testimony is within the discretion of the district court. *Mannino v. Int’l Mfg. Co.*, 650 F.2d 846, 849 (6th Cir. 1981). “[T]he law grants a district court the same broad latitude when it decides *how* to determine reliability as it enjoys in respect to its ultimate reliability determinations.” *Kumho Tire Co., Ltd., et al. v. Carmichael et al.*, 526 U.S. 137, 142 (citing *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 143 (1997)).

IV

Dow Corning argues that Dr. Willard and his opinions do not satisfy *Daubert* and, as a result, his testimony, report, and opinions should be excluded. As a threshold examination, a court must inquire whether a proposed expert is qualified to render an opinion. *Isely v. Capuchin Province*, 877 F. Supp. 1055, 1063 (E.D. Mich. 1995) (stating that qualification of witness by virtue of education and training is the “initial foundational requirement”). Merely proffering a qualified expert is not enough. Once the proposed expert has satisfied the foundational threshold of establishing personal background qualifications as an expert, the expert must then “provide further foundation testimony

as to the validity and reliability of his theories.” *Berry v. Crown Equip. Corp.*, 108 F. Supp. 2d 743,749 (E.D. Mich. 2000).

The expert opinion testimony must be reliable and relevant. *Cook v. Am. S.S. Co.*, 53 F.3d 733, 737-38 (6th Cir. 1995), *abrogated on other grounds by G.E. v. Joiner*, 522 U.S. 136 (1997); *Berry*, 108 F. Supp. 2d at 749. In order to be deemed reliable, the testimony must be offered by someone qualified by virtue of “knowledge, skill, experience, training, or education,” and must relate to “scientific, technical, or other specialized knowledge.” F.R.E. 702; *Cook*, 53 F.2d at 738. Even opinion testimony based on valid scientific or technical knowledge offered by a bona fide expert is still not admissible unless such evidence will “assist the trier of fact.” F.R.E. 702; *Cook*, 53 F.3d at 738.

A

Federal Rule of Evidence 702 admits expert testimony if the evidence will assist the trier of fact, and if the witness is qualified as an expert. *Glaser v. Thompson Med. Co., Inc.*, 32 F.3d 969, 971 (6th Cir. 1994). It is the trial court’s responsibility under Federal Rule of Evidence 104(a) to make a preliminary finding of fact as to “whether the witness’ ‘knowledge, skill, experience, training or education’ are such as to qualify him or her to testify as an expert at all.” *Cook*, 53 F.3d at 738 (citation omitted). The gatekeeping function mandates “intensive scrutiny” of expert qualifications in addition to scrutiny of proposed scientific theories. *Rice v. Cincinnati, New Orleans & Pac. Ry. Co.*, 920 F. Supp. 732, 736-37 (E.D. Ky. 1996). The trial court must determine whether the expert’s training and qualifications relate to the subject matter of the proposed testimony. *Smelser v. Norfolk S. Ry. Co.*, 105 F.3d 299, 303 (6th Cir. 1997), *abrogated on other grounds by G.E. v. Joiner*, 522 U.S. 136(1997); *Berry*, 108 F. Supp. 2d at 749. The court is to examine “not the qualifications of

the witness in the abstract, but whether those qualifications provide a foundation for a witness to answer a specific question.” *Smelser*, 105 F.3d at 303; *Berry v. City of Detroit*, 25 F.3d 1342, 1351 (6th Cir. 1994). A proper foundation for a technical expert demonstrates “firsthand familiarity” with the subject of the testimony. *Berry*, 25 F.3d at 1350.

Dow Corning argues that Dr. Willard does not have the requisite experience to qualify as an expert. Specifically, Dow Corning contends that he lacks “firsthand familiarity” with the use of hot-melt silicone sealants in the manufacture of windows and doors, nor does he have “firsthand familiarity” with the use of hot-melt silicone sealants in the manufacture of any other product. Dow Corning notes that Dr. Willard does not have any education relating to silicone chemistry, nor any education relating specifically to sealants and adhesives, and he does not consider himself an expert in silicone chemistry. Pl.’s Mot. to Exclude Expert Ex. C. In its reply, Dow Corning also asserts that Dr. Willard being a SIX SIGMA trainer is irrelevant here because that training is not related to the window manufacturing industry.

Dow Corning further asserts that Dr. Willard’s work experience is unhelpful. Dr. Willard does not have experience at any company using hot-melt adhesives or sealants, silicone-based or otherwise, in window manufacturing applications. He has not authored any publications or articles, received any patents, or any awards relating to sealants and adhesives in a window manufacturing application. His only testimony regarding window failures allegedly was not related to the issues in the instant case. He also has not participated in or observed the manufacture of a window or door with one exception twenty years ago and has not used InstantGlaze in the manufacture of a window or door.

Dow Corning also notes that Dr. Willard is unfamiliar with the American Architectural

Manufacturers Association (“AAMA”), a group of window manufacturers and various other entities that prescribe a set of specifications for materials used in window manufacturing. Dr. Willard is also unfamiliar with whether others in the window manufacturing business use InstantGlaze and admitted that he has no firsthand knowledge of the effect that a given range of plasticity may have on the window manufacturing process. Dow Corning asserts that Dr. Willard is not an industry expert and falls far short of possessing a “firsthand familiarity” with InstantGlaze and its use in the industry. Dow Corning contends that because of this, and based on Dr. Willard’s own deposition testimony, Dr. Willard does not possess the requisite knowledge, skill, experience, training, or education to render expert opinions regarding InstantGlaze.

Weather Shield responds that Dr. Willard does, however, have an understanding regarding how windows and doors are manufactured, having researched the issue in connection with both litigation and on behalf of a former employer. Willard Dep. 60, 77-78, June 4, 2010. Dr. Willard has also worked with silicone based products throughout his career. Willard Dep. 72-75. Weather Shield asserts that the absence of published works relating specifically to hot-melt silicones and the application of such sealants to windows and doors does not preclude Dr. Willard from testifying, *e.g.*, *In re Noecker*, 472 Mich. 1 (2005), because his qualifications have to be measured in light of whether they qualify him to answer the specific questions at hand, *Smelser*, 105 F.3d at 303 (6th Cir. 1997); *see also Kumho Tire Co.*, 526 U.S. at 156 (“The trial court ha[s] to decide whether this particular expert [h]as sufficient specialized knowledge to assist the jurors in deciding the particular issues in the case.”).

In this case, Dr. Willard will be called as an expert witness to testify that the variability of the plasticity in the InstantGlaze supplied by Dow Corning rendered it unfit for industrial use which

Weather Shield will then argue served to breach Dow Corning's express warranty. Weather Shield asserts that Dr. Willard does not have to establish the chemical reasons for the variation of the Dow Corning product—which Weather Shield submits would be impossible because Dow Corning's has declined to share any information regarding the properties of the product—but only that the variability itself fell outside an acceptable range of variation thus being unsuitable for industrial use which Weather Shield asserts violates Dow Corning's warranty. Dr. Willard is an expert in all phases of plastics including testing, processing and formulation, Willard Dep.70, and, by virtue of his wide background in materials and long experience in the polymer industry, is well familiar with acceptable variations in products, Willard Dep. 95-96. Furthermore, by virtue of his experience as a SIX SIGMA trainer, Weather Shield contends that he is competent to testify that the variations in the Dow products are outside the acceptable range.

Weather Shield notes that Dow Corning's own expert, Jeffrey Jansen of Stork Technimet, Inc., is unfamiliar with hotmelt silicone sealants, Jansen Dep. 10, has not observed windows and doors being manufactured, Jansen Dep. 9, and likewise does not consider himself to be an expert in silicone chemistry, Jansen Dep. 13. Mr. Jansen admits that one need not be an expert in silicone chemistry to do the tests performed by both he and Dr. Willard. Jansen Dep.12-13. Dow Corning refutes this in its reply, stating that Jansen does not offer opinions beyond his area of expertise. Dow Corning also notes that in his deposition, Mr. Jansen stated that in order to render an opinion of the suitability for use of InstantGlaze, one should have some expertise in the manufacturing of windows and doors and have an expertise in silicones, which Dr. Willard does not.

With respect to plasticity Weather Shield contends that Dr. Willard has sufficient education and training in material properties to support his opinions. Willard Dep. 71. Despite Dow's assertion

to the contrary, Dr. Willard knows details of plasticity as demonstrated in his deposition. Materials with a low plasticity will compress more readily and have a lower green strength. Willard Dep. 124-27. Dow Corning's employee concurs. Gordon Dep. 24-25; Rubis Dep. 24. Material with a higher plasticity has a better green strength but is thicker (stiffer) and will not compress as much. Willard Dep. 125, 139. Dow Corning's employee concurs. Rubis Dep. 24. Weather Shield contends that Dr. Willard's mistake in his report and deposition in calling the stiff material "low plasticity" and the soft material "high plasticity" does not impact the fact he knows the material properties and how they impacted Weather Shield's production of windows and doors. The "stiff" materials did not flow as well, left voids in the corners and resisted compression leading to less squeeze out, Willard Dep. 125, 138-139, and the "thinner" or "softer" materials flowed too readily and did not resist compression leading to too much "wet out" and the glass not being supported by the material, Willard Dep. 124-127. As a result, Weather Shield asserts that Dr. Willard has a sufficient background to assist the jury in understanding the issues.

B

1

Dow Corning contends that even if Dr. Willard is preliminarily qualified by education or experience to render expert opinions in this case, Weather Shield cannot satisfy its burden of demonstrating that Dr. Willard's testimony is reliable. Reliability has been described as the "First and universal requirement" for the admissibility of expert opinion evidence. *Cook*, 53 F.3d at 737. In assessing reliability, the trial court must focus on the soundness of the expert's methodology." *Smelser*, 105 F.3d at 303.

First, Dow Corning alleges that although Dr. Willard's opinions relate to InstantGlaze I and

II, he did not test or even view these products but instead tested InstantGlaze WS, the lot-selected InstantGlaze agreed upon by the parties. Pl.'s Mot. to Exclude Expert Exs. C, M. Dow Corning contends this makes Dr. Willard's methodology wholly unreliable.

Second, Dow Corning contends that Dr. Willard did not conduct a plasticity test, claiming he could not do so because it was an internal Dow Corning test and he did not have any wet samples. Dr. Willard allegedly testified, however, that if he had new material as a control with a stated plasticity value, he could have adjusted conditions in his lab until he obtained the stated value and from there could analyze the samples provided by Weather Shield. Dow Corning alleges that it offered to provide sealant samples for Dr. Willard to conduct any tests he believed relevant, but Dr. Willard instead elected not to test for plasticity even though it is Weather Shield's chief complaint. Dow Corning contends that this too reflects a poor methodology.

Third, Dow Corning emphasizes that Dr. Willard acknowledged that his test results may not be representative of the InstantGlaze actually used by Weather Shield. Dr. Willard allegedly confirmed with Weather Shield's counsel that he was given barrels that were set aside because the product did not work. Pl.'s Mot. to Exclude Expert Ex. C. Dr. Willard found it unnecessary to test new samples because it would not demonstrate what was occurring during the relevant time frame. *Id.* Dow Corning asserts that this logic renders all of Dr. Willard's testing irrelevant and calls into question the validity of his conclusions. Dr. Willard allegedly concedes that he has no way of knowing whether the testing data in his report from the three "bad" barrels is indicative of testing data that he would have obtained had he tested every other barrel of InstantGlaze that Weather Shield used. *Id.* Furthermore, Dr. Willard agreed that it is possible that the three barrels were so "bad" that none of the other barrels used would have the same testing characteristics. *Id.*

Fourth, Dow Corning challenges Dr. Willard's method for extracting test samples. According to Dow Corning, Dr. Willard wants to typically test from the top, middle and bottom of the barrel. When picking up a barrel and pouring something out of it, the material will "slosh around" and potentially destroy any layers. To avoid this, Dr. Willard instructed Weather Shield to introduce a piece of electrical conduit into each barrel. If done properly, the material at the top of the barrel should push to the top of the conduit, with the middle and bottom layers being reflective of the respective areas of the barrel. Dr. Willard concedes that this sampling method is "not a perfect science." *Id.* Moreover, Weather Shield could only extract sampling from the barrel containing 1199 product because the InstantGlaze material in the other two barrels were too hard and would not flow into the conduit. Dr. Willard thought that the samples may have collected on the outside of the conduit and Weather Shield probably left it there, and pulled the conduit out as fast as possible. Dr. Willard concedes this modified sampling was even less than perfect. *Id.*

Dr. Willard allegedly noted that one would expect the Shore A hardness value to be higher on the samples taken from the top of the drum because InstantGlaze is a moisture-cure product and the top of the barrel would be exposed to more moisture. Dow Corning alleges that, despite obtaining inverted testing values, Dr. Willard still did not find anything wrong with his product samplings. Furthermore, Dr. Willard did not know how the barrels were being stored but did acknowledge that the samples he tested were likely out of shelf life. Dr. Willard allegedly did not believe that expired material would impact his Shore A hardness testing, but it may have impacted the FTIR analysis.

Fifth, Dr. Willard conducted a test to determine the degree of cure but realized after the test that he could not utilize the data for cure purposes because he is not an expert in silicone chemistry,

but instead could only deduce that there was some contamination in the window from Houston. Dow Corning alleges that even then, Dr. Willard did not know what effect, if any, the contamination may have had. Although Dr. Willard noted that there appeared to be differences in the FTIR/ATR data, he could not opine as to whether such purported differences were significant and could not opine what impact, if any, such differences may cause. Despite this, Dow Corning asserts that Dr. Willard relied on the FTIR analysis in opining that the InstantGlaze products were not consistent from batch to batch.

Sixth, Dow Corning asserts that Dr. Willard searched for the wrong answers. Dr. Willard's lab determined that the 1199 sample contained tin and that the InstantGlaze samples did not. According to Dr. Willard, the lack of tin may explain why the InstantGlaze on the Houston window did not harden. Pl.'s Mot. to Exclude Expert Ex. C. However, Dow Corning uses a titanium catalyst in InstantGlaze as opposed to tin but because Dr. Willard misunderstood the product and did an improper comparison to 1199 product, he searched for something that wasn't there. Dow Corning contends this further demonstrates the flaws in Dr. Willard's testing methodology.

Seventh, Dow Corning asserts that Dr. Willard offered no opinions regarding 1199 product but included a low number for 1199 when comparing the InstantGlaze range of Shore A hardness values. Dr. Willard admitted in his deposition that this was a mistake. Dow Corning contends this shows Dr. Willard admitting that his testing methodology was unsound.

Eighth, Dow Corning contends that Dr. Willard's opinions are speculative. In relying on the Houston window, Dr. Willard opined that inconsistency in the InstantGlaze led to the need for constant manual adjustments to the processing line, leading to testing and field failures. Dr. Willard allegedly admitted, however, that he does not know the history of that particular window so he

cannot definitively correlate the adjustments being made to a field failure.

Finally, Dow Corning alleges that Dr. Willard did not independently verify or investigate the facts and issues. Dr. Willard did not talk to anyone at Weather Shield other than in-house and outside counsel, resulting in his knowledge of the underlying facts of the instant case coming only from counsel. He also only read one Weather Shield deposition and was not provided copies of the two Dow fact depositions. Dr. Willard chose to rely only on documents selected by Weather Shield's counsel.

Furthermore, Dow Corning alleges that Dr. Willard did not personally observe any issues that Weather Shield complained about relating to InstantGlaze. Dr. Willard has never been to the Weather Shield facilities and has never seen application of InstantGlaze in Weather Shield's manufacturing process. Because of this, Dr. Willard cannot rule out other causes for Weather Shield's alleged problems that may not be related to InstantGlaze's plasticity, such as equipment problems or operator errors. Dr. Willard also did not confirm the capabilities of the operators, but instead assumed Weather Shield's operators were well-trained.

Dr. Willard also acknowledged that insufficient bead size could lead to failure but did not investigate the amount of bead used by Weather Shield. He also did not compare the alleged material, equipment and testing costs incurred by Weather Shield with the cost-savings of using InstantGlaze. For the reasons stated above, Dow Corning argues that it is impermissible and unfair to permit Dr. Willard, without independent verification and investigation, to simply report Weather Shield's claims under the cloak of being an expert. Dow Corning asserts that Dr. Willard's testing methodology is suspect and has "gaping holes." In its reply, Dow Corning notes that Weather Shield's arguments, provided below, address application of the procedures and the accuracy of

results whereas Dow Corning is challenging the actual testing methodology itself. Because Dr. Willard's methodology fails to demonstrate the soundness required of an expert, Dow contends that his opinions should be excluded.

2

Weather Shield asserts that, pursuant to Federal Rule of Evidence 703, an expert can rely upon data from a variety of sources in rendering an expert opinion. Specifically, the rule provides:

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence in order for the opinion or inference to be admitted. Facts or data that are otherwise inadmissible should not be disclosed to the jury by the proponent of the opinion or inference unless the court determines that their probative value in assisting the jury to evaluate the expert's opinion substantially outweighs their prejudicial effect.

Weather Shield asserts that Dr. Willard obtained the information upon which he bases his opinions from a variety of sources including documents supplied by counsel, documents exchanged during discovery, tests he performed, deposition transcripts and the pleadings filed by the parties. Def.s' Resp. to Pl.'s Mot. to Exclude Expert Ex. 14. Weather Shield alleges that Dr. Willard's background information related to the case is several inches thick. Accordingly, Dr. Willard had ample information from key participants in the manufacturing process to understand not only the specific problems encountered by Weather Shield in the manufacturing process, but Dow Corning's response to Weather Shield's complaints. While Dow Corning asserts that Dr. Willard was required to independently verify or investigate the facts and issues, Weather Shield alleges that is not required by Federal Rule of Evidence 703 and Dow Corning advances no authority to the contrary. Weakness in the factual basis of an expert witness' opinion simply bears on the weight of the evidence, not its

admissibility. *United States v. L.E. Cooke Co.*, 991 F.2d 336, 342 (6th Cir. 1993); *see also Pretzer v. Otto Bock Healthcare*, 2010 WL 726953 (E.D. Mich. 2010). In fact, many experts render opinions based solely upon hypotheticals presented by counsel, a practice recognized under the rule. *See* F.R.E. 703 1972 Advisory Committee Notes. Weather Shield contends Dr. Willard did far more than that which is evidenced by his extensive file and by his analysis of the facts. Consequently, Dow Corning's assertion that Dr. Willard could or should have done more than he did is nothing but a jury argument about the weight of the evidence. Weather Shield contends that Dow Corning may thus challenge any shortcomings in cross examination but it is not a basis upon which to preclude Dr. Willard from testifying.

Dow Corning also argues that Dr. Willard's testimony should be precluded on the basis that it is not based on reliable principals or methods. Arguments about "the specific application of the procedure used or questions about the accuracy of the test results do not render the scientific theory and methodology invalid or destroy their general acceptance. These questions go to the weight of the evidence, not the admissibility." *United States v. Bonds*, 12 F.3d 540, 563 (6th Cir. 1993) (citing *Daubert*, 509 U.S. at 594-95; *Quiet Tech, DC-8, Inc. v. Hurel-Dubois U.K. Ltd.*, 326 F.3d 1333, 1343 (11th Cir. 2003). Weather Shield contends that an examination of the facts reveals that Dr. Willard's test methods and procedures were reliable.

Dr. Willard was initially retained to test InstantGlaze material of the vintage utilized by Weather Shield in the manufacturing process to determine whether the InstantGlaze met Dow Corning's published specification. Willard Dep. 21. Dr. Willard allegedly encountered a number of road blocks, some of which were purportedly erected by Dow Corning and some of which were the result of the passage of time, which interfered with the task.

First, it was discovered that the InstantGlaze product had a shelf life of apparently one year making any testing of 2006 and 2007 vintage InstantGlaze problematic because it could be expected that the product had chemically changed. Block Dep. 92; Willard Dep. 36. Second, it was determined that neither party had unopened samples of 2006 and 2007 InstantGlaze so that it could be tested in whatever stage of cure existed with respect to the out of date product. Willard Dep. 55. Third, even if materials existed that were not out of shelf life and were not opened, it would reveal nothing about the make up of the product so that Dr. Willard could compare the product that did exist against the Dow Corning “recipe” for the product to determine if it met its own specifications.² Willard Dep. 23, 52-54. Fourth, Dow took the position that the only relevant characteristics of its product were its appearance and its plasticity as set forth in its product certification analysis. Willard Dep. 52-55. Dr. Willard then determined that because Dow Corning used its own corporate test method (as opposed to the standard ASTM test) to determine plasticity, and given the fact there were no appropriate samples from the 2006 and 2007 timeframe, it was impossible for him to do testing to determine whether the product fell within the plasticity range at the time it was being used by Weather Shield. (Willard Dep. 35). Weather Shield asserts that given the fact that Dow Corning itself admitted there to be a range in the plasticity of the materials, thus rendering unnecessary any testing to prove as a fact that there was a range of plasticity in the materials, Dr. Willard undertook instead to determine whether there were variations between the samples of the stored material and the InstantGlaze used to assemble windows that had been removed from homes by Weather Shield. The windows had been removed because the InstantGlaze had run out onto the glass prompting

²Dow Corning notes in its reply that discussion of its “recipe” is not at issue and is thus a red herring.

complaints by the homeowners. Dr. Willard also determined to test the samples from the two barrels of InstantGlaze that had been retained by Weather Shield in order to determine whether in addition to differences between the barrels and the tested windows, there were also differences in the barrels themselves which would compound the variation in the plasticity range that Dow Corning admitted was inherent from batch to batch in its manufacturing process.

The tests performed by Dr. Willard included fourier transform infrared spectroscopy (FTIR) attenuated total reflections (ATR), modulated differential scanning calorimetry (MDSC), inductively coupled plasma (ICP), pyrolysis gc (MS), and Shore A hardness tests. The FTIR/ATR tests utilize light as a means of identifying materials. Lipp Dep. 9. These tests are routinely performed by Dow Corning employees, Lipp Dep. 7-9, as well as Dow Corning's outside expert, Jeffrey Jansen. They are well recognized in the industry. Both Dow Corning's employee and Jeffrey Jansen agree that Dr. Willard properly acknowledged that silicone is a component of InstantGlaze. Lipp Dep. 31. While Dow Corning's employee criticized Dr. Willard's specific testing techniques due to his failure to eliminate stray light, Lipp Dep. 35, he did concede that Dr. Willard made the correct decision in determining that the material under investigation did include silicone, Lipp Dep. 39, 48, 54. Mr. Lipp also agreed with Dr. Willard's conclusion that the samples of InstantGlaze that had run onto the window glass demonstrated some problems not found in the drum samples taken from Weather Shield. Lipp Dep. 49. Specifically, Mr. Lipp concluded that there was some form of saturated hydrocarbon in some of the samples. Lipp Dep. 49, 55. Another Dow Corning employee, Glenn Gordon, testified that saturated hydrocarbons include solvents such as methanol, isopropyl alcohol, toluene and butanol. Gordon Dep. 55. Given the concurrence of Dow Corning's own employees with Dr. Willard's conclusions, Weather Shield contends that Dow Corning cannot argue that Dr.

Willard's test methods were inappropriate or unreliable.

Weather Shield also argues that Dow Corning is trying to "have its cake and eat it too." First, Dow Corning refused to provide Dr. Willard—and even its own expert—any information regarding the chemical composition of InstantGlaze. Willard Dep. 3, 52-54; Jansen Dep. 29-30. Consequently, Dr. Willard performed tests to determine some of the chemical elements of the InstantGlaze. He identified tin in a sample of the 1199 Dow Corning product and knew from his own experiences that it may be used as a catalyst in the curing process. He then tested the InstantGlaze that had dripped onto the glass for the presence of tin and, finding none, concluded that the absence of tin could be an explanation for the InstantGlaze having dropped onto the glass. Def.s' Resp. to Pl.'s Mot. to Exclude Expert Ex. 14; Willard Dep. 158-165. Weather Shield argues that Dr. Willard cannot be faulted for finding a potential explanation for the difference in performance and then taking steps to rule it in or rule it out. If, in fact, titanium was used by Dow Corning as the catalyst, Block Dep. 97, then Dow Corning has an explanation that would refute any conclusions Dr. Willard reached regarding the absence of tin. However, Weather Shield argues that this does not undermine the validity of the process he used to find an explanation.

Shore A hardness is a measurement of the hardness of the material at full cure. Rubis Dep. 43, 65-67. If Shore A hardness varies from sample to sample by more than an expected amount, the variance is due to a difference in the materials tested. Willard Dep. 106. Since Dr. Willard had no other material to test, Weather Shield contends that he cannot be criticized for testing what was available to him. Dow Corning asked its own expert to evaluate Shore A hardness and the Dow Corning employees who testified admit that Shore A hardness is an appropriate test to determine characteristics of the material. Rubis Dep. 43, 65-67. Shore A hardness is also utilized as one of the

typical properties of the InstantGlaze material for consideration by users of the material. Def.s' Resp. to Pl.'s Mot. to Exclude Expert Exs. 1 and 2. Weather Shield asserts that the criticism regarding the samples used goes to the weight to be afforded to Dr. Willard's conclusions regarding Shore A hardness and not whether such testing was appropriate or admissible. *United States v. Bonds, supra*.

Dow Corning also criticizes Dr. Willard's testing or samples that had been set aside because the materials did not work. Willard Dep. 35. Since Weather Shield's complaint relates to the fact the material was variable with some materials working within acceptable tolerances and some not, Weather Shield argues that there was nothing wrong with testing the materials that did not work in an effort to determine what was deficient with them.

Finally, Weather Shield contends that Dr. Willard's testimony, report and opinions are admissible because Dr. Willard has applied the principles and methods reliably to the facts of the case. As set forth above, Dr. Willard performed the same type of testing and analysis as routinely performed by Dow Corning's own internal staff and as performed by Dow Corning's outside expert. While some of his tests may not have been performed with the specific protocols utilized by Dow Corning's experts, they nevertheless produced results with which the Dow Corning experts concurred showing reliable application of the principles and methods utilized by Dr. Willard.

Weather Shield's notes that the task in this case is to show that the products supplied breached Dow Corning's express representations concerning the commercial application of its product. As noted above, Weather Shield plans to do so through, among other things, utilization of Dow Corning's own product literature and information demonstrating the variation in plasticity from batch to batch of the InstantGlaze material. Dr. Willard is able to testify as an expert that the

variation itself was the product feature that caused a breach of the express warranty. Weather Shield alleges that it is not required to demonstrate the specific chemistry explanation for the variation from batch to batch of the InstantGlaze material. Weather Shield asserts that this is particularly true where, as is the case here, Dow Corning has allegedly refused to give Weather Shield any information regarding the product formula or how InstantGlaze is made. Weather Shield contends that it is apparent that Dow Corning itself cannot explain why there are variations in plasticity from batch to batch otherwise they would have been more successful in controlling the variation.

C

Expert testimony is admissible only if it will assist the trier of fact. F.R.E. 702. Courts have framed the inquiry as “whether expert testimony improperly addresses matters within the understanding or common knowledge of the average juror or invades the province of the jury.” *United States v. Thomas*, 74 F.3d 676, 684 n.6 (6th Cir. 1996), *abrogated on other grounds by G.E. v. Joiner*, 522 U.S. 136 (1997). As stated by the court in *Berry*, “[i]f everyone knows [something], then we do not need an expert because the testimony will not ‘assist the trier of fact to understand the evidence or to determine a fact in issue.’ ” 25 F.3d at 1350 (citation omitted).

Dow Corning contends that Dr. Willard’s testimony cannot be considered expert testimony because his opinions are premised on limited facts from documents provided by Weather Shield’s counsel. Furthermore, Dr. Willard did not verify facts, speak directly with Weather Shield employees who used InstantGlaze and did not fully investigate the Houston residence that provided the sample. He also has no knowledge of InstantGlaze other than the tests he performed for the instant case, which provided inconclusive results, and has not investigated the industry’s use of InstantGlaze.

Additionally, although Dr. Willard criticizes the variability in plasticity, Dow Corning asserts that he has no firsthand knowledge of the effect a given range of plasticity may have on the manufacturing process but instead he said he could “only rely on the information that was provided to him.” Pl.’s Mot. to Exclude Expert Ex. C. Dr. Willard conceded that expert testimony is not needed to support his opinion about the failure of the Houston window to fully cure. Dr. Willard only demonstrated that there was something wrong with the window and he agreed that anyone could examine the window and realize something was wrong. If expert testimony will not be of any assistance, as Dow Corning contends it would not be here, the jury should be permitted to reach its own conclusions.

Weather Shield disagrees. In its claim against Dow Corning, Weather Shield alleges that Dow Corning breached its warranty to Weather Shield by furnishing InstantGlaze that was not commercially useable by Weather Shield. Weather Shield asserts that it intends to prove this breach of warranty in two ways. First, Weather Shield intends to present the testimony of its manufacturing personnel who will explain the problems encountered by Weather Shield with the use of the InstantGlaze product. This will involve the testimony of several individuals and the introduction of numerous documents that will establish the ongoing problems encountered by Weather Shield in its efforts to use the InstantGlaze product. Second, Weather Shield intends to present the testimony of Dr. Willard to establish that its problems in the manufacturing process were the result of variations in the plasticity of the InstantGlaze material and that these variations were beyond those that could be reasonably expected in connection with an industrial product.

Based on Dr. Willard’s opinion provided above, Weather Shield contends that the information from Dr. Willard will assist the jury as the trier of fact to understand the basis of Weather Shield’s

breach of contract claim so as to determine whether the contract was breached by Dow Corning. Accordingly, this element of Federal Rule of Evidence 702 will be met by the presentation of Dr. Willard's testimony.

V

Dow Corning has not demonstrated that Dr. Willard is unqualified to offer expert testimony about the problems in the manufacturing process presented by the variations in plasticity of the InstantGlaze material, or that the opinions Dr. Willard intends to provide are irrelevant or unreliable. More importantly, Dr. Willard's opinions, while clearly subject to challenge in some respects, are reasonably reliable and will be helpful in determining the ultimate issue in this case. The concerns Dow Corning raises with Dr. Willard's testimony is most properly addressed by challenging the weight of Dr. Willard's testimony as evidence at trial. Consequently, Dr. Willard's opinions are admissible under Federal Rule of Evidence 702, and should be considered and weighed appropriately.

VI

Accordingly, Plaintiff's motion to exclude the testimony, report, and opinions of Dr. Fred G. Willard [Dkt. #22] is **DENIED**.

s/Thomas L. Ludington
THOMAS L. LUDINGTON
United States District Judge

Dated: June 22, 2011

PROOF OF SERVICE

The undersigned certifies that a copy of the foregoing order was served upon each attorney or party of record herein by electronic means or first class U.S. mail on June 22, 2011.

s/Tracy A. Jacobs
TRACY A. JACOBS